

AMENDMENTS TO THE SPECIFICATION

On page 1, please delete the first paragraph under the title and insert in its place the following new paragraph.

This application is a U.S. National Phase Application of International Application No.

PCT/US05/04714 filed on February 11, 2005 and asserts priority to U.S. Application Serial No. 10/845,057 filed on May 13, 2004, which is a continuing application of U.S. Application Serial Number 10/778,908 filed on February 13, 2004. The specifications of International Application No. PCT/US05/04714, U.S. Application Serial No. 10/845,057, and U.S. Application Serial Number 10/778,908 are hereby incorporated by reference in their entirety.

On pages 19-26, please delete Tables 1 through 4 and insert in its place the following new Tables 1 through 4:

Table 1: Human, Mouse and Rat microRNA and anti-microRNA sequences.

microRNA name	microRNA sequence (5' to 3')	Anti-microRNA molecule sequence (5' to 3')
hsa-miR-100	<u>SEQ ID NO. 1</u> AACCCGUAGAUCCGAACUUGUG	<u>SEQ ID NO.307</u> CACAAGUUCGGAUCUACGGGUU
hsa-miR-103	<u>SEQ ID NO. 2</u> AGCAGCAUUGUACAGGGCUAUG	<u>SEQ ID NO.308</u> CAUAGCCCUGUACAAUGCUGCU
hsa-miR-105-5p	<u>SEQ ID NO. 3</u> UCAAAUGUCUCAGACUCCUGUGG	<u>SEQ ID NO.309</u> CCACAGGAGUCUGAGCAUUUGA
hsa-miR-106a	<u>SEQ ID NO. 4</u> AAAAGUGCUUACAGUGCAGGUA	<u>SEQ ID NO.310</u> UACCUGCACUGUAAGCACUUUU
hsa-miR-106b	<u>SEQ ID NO. 5</u> UAAAGUGCUGACAGUGCAGAUA	<u>SEQ ID NO.311</u> UAUCUGCACUGUCAGCACUUUA
hsa-miR-107	<u>SEQ ID NO. 6</u> AGCAGCAUUGUACAGGGCUAUC	<u>SEQ ID NO.312</u> GAUAGCCCUGUACAAUGCUGCU
hsa-miR-10b	<u>SEQ ID NO. 7</u> UACCCUGUAGAACCGAAUUUGU	<u>SEQ ID NO.313</u> ACAAAUUCGGUUCUACAGGGUA
hsa-miR-128b	<u>SEQ ID NO. 8</u> UCACAGUGAACCGGUCUCUUUC	<u>SEQ ID NO.314</u> GAAAGAGACCGGUUCACUGUGA
hsa-miR-130b	<u>SEQ ID NO. 9</u> CAGUGCAAUGAUGAAAGGGCAU	<u>SEQ ID NO.315</u> AUGCCUUUCAUCAUUGCACUG
hsa-miR-140-3p	<u>SEQ ID NO. 10</u> UACCAACAGGGUAGAACCAACGGA	<u>SEQ ID NO.316</u> UCCGUGGUUCUACCCUGUGGU
hsa-miR-142-5p	<u>SEQ ID NO. 11</u> CCCAUAAAAGUAGAAAGCACUAC	<u>SEQ ID NO.317</u> GUAGUGCUUUCUACUUUAUGGG
hsa-miR-151-5p	<u>SEQ ID NO. 12</u> UCGAGGAGCUCACAGUCUAGUA	<u>SEQ ID NO.318</u> UACUAGACUGUGAGCUCCUCGA
hsa-miR-155	<u>SEQ ID NO. 13</u> UUAAUGCUAAUCGUGAUAGGGG	<u>SEQ ID NO.319</u> CCCCUAUACACGAUUAAGCAUUA
hsa-miR-181a	<u>SEQ ID NO. 14</u> AACAUUCAACGCUGUCGGUGAG	<u>SEQ ID NO.320</u> CUCACCGACAGCGUUGAAUGUU
hsa-miR-181b	<u>SEQ ID NO. 15</u> AACAUUCAUUGCUGUCGGUGGG	<u>SEQ ID NO.321</u> CCCACCGACAGCAAUGAAUGUU
hsa-miR-181c	<u>SEQ ID NO. 16</u> AACAUUCAACCUGUCGGUGAGU	<u>SEQ ID NO.322</u> ACUCACCGACAGGUUGAAUGUU
hsa-miR-182	<u>SEQ ID NO. 17</u> UUUGGCAAUGGUAGAACUCACA	<u>SEQ ID NO.323</u> UGUGAGUUUCUACCAUUGCCA
hsa-miR-183	<u>SEQ ID NO. 18</u> UAUGGCACUGGUAGAAUUCACU	<u>SEQ ID NO.324</u> AGUGAAUUCUACCAUGGCCAU
hsa-miR-184	<u>SEQ ID NO. 19</u> UGGACGGAGAACUGUAAGGGU	<u>SEQ ID NO.325</u> ACCCUUAUCAGUUCUCCGUCCA
hsa-miR-185	<u>SEQ ID NO. 20</u> UGGAGAGAACGGCAGUUCUGA	<u>SEQ ID NO.326</u> UCAGGAACUGCCUUCUCUCCA
hsa-miR-186	<u>SEQ ID NO. 21</u> CAAAGAAUUCUCCUUUJGGCU	<u>SEQ ID NO.327</u> AGCCCCAAAGGAGAAUUCUUG
hsa-miR-187	<u>SEQ ID NO. 22</u> UCGUGUCUUGUGUUGCAGCCGG	<u>SEQ ID NO.328</u> CCGGCUGCAACACAAGACACGA
hsa-miR-188-3p	<u>SEQ ID NO. 23</u> CUCCCCACAUGCAGGGUUUGCAG	<u>SEQ ID NO.329</u> CUGCAAACCCUGCAUGUGGGAG
hsa-miR-188-5p	<u>SEQ ID NO. 24</u> CAUCCCCUUGCAUGGUGGAGGGU	<u>SEQ ID NO.330</u> ACCCUCCACCAUGCAAGGGGAU
hsa-miR-189	<u>SEQ ID NO. 25</u> GUGCCUACUGAGCUGAACUACAG	<u>SEQ ID NO.331</u> CUGAUUAUCAGCUCAGUAGGCAC
hsa-miR-190	<u>SEQ ID NO. 26</u> UGAUAUGUUUGAUAAUUAUGGU	<u>SEQ ID NO.332</u> ACCUAAUUAUCAAAACAAUUA
hsa-miR-191	<u>SEQ ID NO. 27</u> CAACGGAAUCCCCAAAGCAGCU	<u>SEQ ID NO.333</u> AGCUGCUUUUUGGGAUUCCGUUG
hsa-miR-192	<u>SEQ ID NO. 28</u> CUGACCUAUGAAUUGACAGCCA	<u>SEQ ID NO.334</u> UGGCUGUCAAUCAUAGGUCAG
hsa-miR-193-3p	<u>SEQ ID NO. 29</u> AACUGGCCUACAAAGUCCAGU	<u>SEQ ID NO.335</u> ACUGGGACUUUGUAGGCCAGUU
hsa-miR-193-5p	<u>SEQ ID NO. 30</u> UGGGUCUUUGCGGGCAAGAUGA	<u>SEQ ID NO.336</u> UCAUCUUGCCGCAAAGACCCA
hsa-miR-194	<u>SEQ ID NO. 31</u> UGUAACAGCAACUCCAUGUGGA	<u>SEQ ID NO.337</u> UCCACAAUGGAGUUGCUGUUACA
hsa-miR-195	<u>SEQ ID NO. 32</u> UAGCAGCACAGAAUUAUUGGCA	<u>SEQ ID NO.338</u> UGCCAAUUAUUCUGUGCUGCUA

microRNA name	microRNA sequence (5' to 3')	Anti-microRNA molecule sequence (5' to 3')
hsa-miR-196	<u>SEQ ID NO. 33</u> UAGGUAGUUUCAUGUUCGUUGGG	<u>SEQ ID NO.339</u> CCCAACACAUGAAACUACCIA
hsa-miR-197	<u>SEQ ID NO. 34</u> UUCACCACCUUCUCCACCCAGC	<u>SEQ ID NO.340</u> GCUGGGUGGAGAAGGUGGUGAA
hsa-miR-198	<u>SEQ ID NO. 35</u> GGUCCAGAGGGGAGAUAGGUUC	<u>SEQ ID NO.341</u> GAACCUALUCUCCCCUCUGGACC
hsa-miR-199a-3p	<u>SEQ ID NO. 36</u> ACAGUAGUCUGCACAUUGGUUA	<u>SEQ ID NO.342</u> UAACCAAUGUGCAGACUACUGU
hsa-miR-199a-5p	<u>SEQ ID NO. 37</u> CCCAGUGUUCAGACUACCGUU	<u>SEQ ID NO.343</u> AACAGGUAGUCUGAACACUGGG
hsa-miR-199b	<u>SEQ ID NO. 38</u> CCCAGUGUUUAGACUAUCUGUU	<u>SEQ ID NO.344</u> AACAGAUAGUCUAAACACUGGG
hsa-miR-200a	<u>SEQ ID NO. 39</u> UAACACUGUCUGGUACAGAUGU	<u>SEQ ID NO.345</u> ACAUCGUUACCAGACAGUGUUA
hsa-miR-200b	<u>SEQ ID NO. 40</u> CUCUAAUACUGCCUGGUAAUGA	<u>SEQ ID NO.346</u> UCAUUACCAGGCAGUAAUAGAG
hsa-miR-200c	<u>SEQ ID NO. 41</u> AAUACUGCCGGGUAAUGAUGGA	<u>SEQ ID NO.347</u> UCCAUCAUUACCCGGCAGUAUU
hsa-miR-203	<u>SEQ ID NO. 42</u> GUGAAAUGUUUAGGACCAUCAG	<u>SEQ ID NO.348</u> CUAGUGGUCCUAACAUUUCAC
hsa-miR-204	<u>SEQ ID NO. 43</u> UUCCCUUUGUCAUCCUAUGCCU	<u>SEQ ID NO.349</u> AGGCAUAGGAUGACAAAGGGAA
hsa-miR-205	<u>SEQ ID NO. 44</u> UCCUUCAUUCCACCGGAGUCUG	<u>SEQ ID NO.350</u> CAGACUCCGGUGGAAUGAAGGA
hsa-miR-206	<u>SEQ ID NO. 45</u> UGGAAUGUAAGGAAGUGUGUGG	<u>SEQ ID NO.351</u> CCACACACUUCUACAUUCCA
hsa-miR-208	<u>SEQ ID NO. 46</u> AUAAGACGAGCAAAAGCUUGU	<u>SEQ ID NO.352</u> ACAAGCUUUUUGCUCGUCUUAU
hsa-miR-210	<u>SEQ ID NO. 47</u> CUGUGCGUGUGACAGCAGCUGA	<u>SEQ ID NO.353</u> UCAGCCGCGUCACACGCACAG
hsa-miR-211	<u>SEQ ID NO. 48</u> UUCCCUUUGUCAUCCUUCGCCU	<u>SEQ ID NO.354</u> AGGCGAAGGAUGACAAAGGGAA
hsa-miR-212	<u>SEQ ID NO. 49</u> UAACAGUCUCCAGUCACGGCCA	<u>SEQ ID NO.355</u> UGGCCGUGACUGGAGACUGUUA
hsa-miR-213	<u>SEQ ID NO. 50</u> ACCAUCGACCGUUGAUUGUACC	<u>SEQ ID NO.356</u> GGUACAAUCAACGGUCGAUGGU
hsa-miR-214	<u>SEQ ID NO. 51</u> ACAGCAGGCACAGACAGGCGAU	<u>SEQ ID NO.357</u> ACUGCCUGUCUGUGCCUGCUGU
hsa-miR-215	<u>SEQ ID NO. 52</u> AUGACCUAUGAAUUGACAGACA	<u>SEQ ID NO.358</u> UGUCUGUCAAUUCAUAGGUCAU
hsa-miR-216	<u>SEQ ID NO. 53</u> UAAUCUCAGCUGGCAACUGUGA	<u>SEQ ID NO.359</u> UCACAGUUGCCAGCUGAGAUUA
hsa-miR-217	<u>SEQ ID NO. 54</u> UACUGCAUCAGGAACUGAUUGG	<u>SEQ ID NO.360</u> CCAAUCAGUUCCUGAUGCAGUA
hsa-miR-218	<u>SEQ ID NO. 55</u> UUGUGCUUGAUCAACCAUGUG	<u>SEQ ID NO.361</u> CACAUGGUUAGAUCAAGCACAA
hsa-miR-219	<u>SEQ ID NO. 56</u> UGAUUGUCCAACGCAAUUCUU	<u>SEQ ID NO.362</u> AAGAAUUGCUUUUGGACAAUCA
hsa-miR-220	<u>SEQ ID NO. 57</u> CCACACCGUAUCUGACACUUUG	<u>SEQ ID NO.363</u> CAAAGUGUCAGAUACGGUGUGG
hsa-miR-221	<u>SEQ ID NO. 58</u> AGCUACAUUGUCUGCUGGGUUU	<u>SEQ ID NO.364</u> AAACCCAGCAGACAAUGUAGCU
hsa-miR-222	<u>SEQ ID NO. 59</u> AGCUACAUUCUGGUACUGGGUC	<u>SEQ ID NO.365</u> GACCCAGUAGCCAGAUGUAGCU
hsa-miR-223	<u>SEQ ID NO. 60</u> UGUCAGUUUGUCAAACUACCCA	<u>SEQ ID NO.366</u> UGGGGUAUUUGACAAACUGACA
hsa-miR-224	<u>SEQ ID NO. 61</u> CAAGUCACUAGUGGUUCGUUU	<u>SEQ ID NO.367</u> AAACGGAACCAUCAGUGACUUG
hsa-miR-28-5p	<u>SEQ ID NO. 62</u> AAGGAGCUCACAGUCUAUUGAG	<u>SEQ ID NO.368</u> CUCAAUAGACUGUGAGCUCCUU
hsa-miR-290	<u>SEQ ID NO. 63</u> CUCAAACUGUGGGGGCACUUUC	<u>SEQ ID NO.369</u> GAAAGUGCCCCCACAGUUUGAG
hsa-miR-296	<u>SEQ ID NO. 64</u> AGGGCCCCCCCUCAAUCCUGUU	<u>SEQ ID NO.370</u> AACAGGAUUGAGGGGGGGCCU
hsa-miR-299	<u>SEQ ID NO. 65</u> UGGUUUACCGUCCCACAUACAU	<u>SEQ ID NO.371</u> AUGUAUGUGGGACGGUAAACCA
hsa-miR-301	<u>SEQ ID NO. 66</u> CAGUGCAAUAGUAUUGUCAAAG	<u>SEQ ID NO.372</u> CUUUGACAAUACUAUUGCACUG
hsa-miR-302	<u>SEQ ID NO. 67</u> UAAGUGCUUCCAUGUUUUGGUG	<u>SEQ ID NO.373</u> CACAAAACAUGGAAGCACUUA
hsa-miR-30e	<u>SEQ ID NO. 68</u> UGUAAAACAUCCUUGACUGGAAG	<u>SEQ ID NO.374</u> CUUCCAGUCAAGGAUGUUUACA
hsa-miR-320	<u>SEQ ID NO. 69</u> AAAAGCUGGGUUGAGAGGGCGA	<u>SEQ ID NO.375</u> UCGCCCCUCAACCCAGCUUUU
hsa-miR-321	<u>SEQ ID NO. 70</u> UAAGGCCAGGGAUUGUGGGGUUCG	<u>SEQ ID NO.376</u> CGAACCCACAAUCCCUGGCCUU
hsa-miR-322	<u>SEQ ID NO. 71</u> AAACAUAGAAUUGCUGCUGUAUC	<u>SEQ ID NO.377</u> GAUACAGCAGCAAUCAUGUUU
hsa-miR-323	<u>SEQ ID NO. 72</u> GCACAUUACACGGUCGACCUU	<u>SEQ ID NO.378</u> AGAGGUCGACCGUGUAAUGUGC
hsa-miR-324-3p	<u>SEQ ID NO. 73</u> CCACUGCCCCAGGUGCUGCUGG	<u>SEQ ID NO.379</u> CCAGCAGCACCUGGGCAGUGG
hsa-miR-324-5p	<u>SEQ ID NO. 74</u> CGCAUCCCCUAGGGCAUUGGUG	<u>SEQ ID NO.380</u> CACCAAUGCCUAGGGGAUGCG
hsa-miR-326	<u>SEQ ID NO. 75</u> CCUCUGGGCCCCUUCUCCAGCC	<u>SEQ ID NO.381</u> GCGUGGAGGAAGGGCCCAGAGG
hsa-miR-328	<u>SEQ ID NO. 76</u> CUGGCCCUUCUCUGCCCCUUCGU	<u>SEQ ID NO.382</u> ACGGAAGGGCAGAGAGGGCCAG
hsa-miR-329	<u>SEQ ID NO. 77</u> AACACACCCAGCUACCUUUUU	<u>SEQ ID NO.383</u> AAAAAGGUUAGCUGGGUGUGUU
hsa-miR-34a	<u>SEQ ID NO. 78</u> UGGCAGUGUCUUAGCUGGUUGU	<u>SEQ ID NO.384</u> ACAACCAGCUAAGACACUGCCA
hsa-miR-34b	<u>SEQ ID NO. 79</u> AGGCAGUGUCAUUAUGCUGAUUG	<u>SEQ ID NO.385</u> CAAUCAGCUAAUGACACUGCCU
hsa-miR-34c	<u>SEQ ID NO. 80</u> AGGCAGUGUAGUUAGCUGAUUG	<u>SEQ ID NO.386</u> CAAUCAGCUACUACACUGCCU
hsa-miR-92	<u>SEQ ID NO. 81</u> UAUUGCACUUGUCCGGCCUGU	<u>SEQ ID NO.387</u> ACAGGCCGGACAAGUGCAAUA
hsa-miR-93	<u>SEQ ID NO. 82</u> AAAGUGCUGUUCGUGCAGGUAG	<u>SEQ ID NO.388</u> CUACCUGCACGAACAGCACUUU
hsa-miR-95	<u>SEQ ID NO. 83</u> UUCAACGGGUAAUUUAUUGAGCA	<u>SEQ ID NO.389</u> UGCUCAAUAAAACCCGUUGAA
hsa-miR-96	<u>SEQ ID NO. 84</u> UUUGGCACUAGCACAUUUUUGC	<u>SEQ ID NO.390</u> GCAAAAAUGUGCUAGUGCCAAA
hsa-miR-98	<u>SEQ ID NO. 85</u> UGAGGUAGUAAGUUGUAUUGUU	<u>SEQ ID NO.391</u> AACAAUACAACUUAUCUACCUCA
mmu-miR-106a	<u>SEQ ID NO. 86</u> CAAAGUGCUAACAGUGCAGGUA	<u>SEQ ID NO.392</u> UACCUGCACUGUUAAGCACUUUUG
mmu-miR-10b	<u>SEQ ID NO. 87</u> CCCUGUAGAACCGAAUUUGUGU	<u>SEQ ID NO.393</u> ACACAAAUCGGUUCUACAGGG

microRNA name	microRNA sequence (5' to 3')	Anti-microRNA molecule sequence (5' to 3')
mmu-miR-135b	<u>SEQ ID NO. 88</u> UAUUGCUUUUCAUUCUUAUGUG	<u>SEQ ID NO.394</u> CACAUAGGAAUGAAAAGCCAUA
mmu-miR-148b	<u>SEQ ID NO. 89</u> UCAGUGCAUCACAGAACUUUGU	<u>SEQ ID NO.395</u> ACAAAGUUCUGUGAUGCACUGA
mmu-miR-151-3p	<u>SEQ ID NO. 90</u> CUAGACUGAGGCUCCUUGAGGA	<u>SEQ ID NO.396</u> UCCUCAAGGAGCCUCAGCUAG
mmu-miR-155	<u>SEQ ID NO. 91</u> UUAAUGCUAAUUGUGAUAGGGG	<u>SEQ ID NO.397</u> CCCCUALCACAAUUAAGCAUUA
mmu-miR-199b	<u>SEQ ID NO. 92</u> CCCAGUGUUUAGACUACCUGUU	<u>SEQ ID NO.398</u> AACAGGUAGCUAAACACUGGG
mmu-miR-200b	<u>SEQ ID NO. 93</u> UAAUACUGCCUGGUAAUGAUGA	<u>SEQ ID NO.399</u> UCAUCAUUAACCAGGCAGUAAU
mmu-miR-203	<u>SEQ ID NO. 94</u> UGAAAUGUUUAGGACCACUAGA	<u>SEQ ID NO.400</u> UCUAGUGGUCCUAACAAUUA
mmu-miR-211	<u>SEQ ID NO. 95</u> UUCCCCUUGUCAUCCUUGCCU	<u>SEQ ID NO.401</u> AGGCAAAGGAUGACAAAGGGAA
mmu-miR-217	<u>SEQ ID NO. 96</u> UACUGCAUCAGGAACUGACUGG	<u>SEQ ID NO.402</u> CCAGUCAGUUCCUGAUGCAGUA
mmu-miR-224	<u>SEQ ID NO. 97</u> UAAGUCACUAGUGGUUCCGUUU	<u>SEQ ID NO.403</u> AAACGGAACCACUAGUGACUUA
mmu-miR-28-3p	<u>SEQ ID NO. 98</u> CACUAGAUUGUGAGCUGCUGGA	<u>SEQ ID NO.404</u> UCCAGCAGCUCACAACUAGUG
mmu-miR-290	<u>SEQ ID NO. 99</u> CUCAAACUAUGGGGGCACUUUU	<u>SEQ ID NO.405</u> AAAAGUGCCCCAUAGUUUGAG
mmu-miR-291-3p	<u>SEQ ID NO. 100</u> AAAGUGCUUCCACUUUUGUGUGC	<u>SEQ ID NO.406</u> GCACACAAAGUGGAAGCACUUU
mmu-miR-291-5p	<u>SEQ ID NO. 101</u> CAUCAAAGUGGAGGCCUCUCU	<u>SEQ ID NO.407</u> AGAGAGGCCUCCACUUJUGAUG
mmu-miR-292-3p	<u>SEQ ID NO. 102</u> AAGUGCCGCCAGGUUUUGAGUG	<u>SEQ ID NO.408</u> CACUAAAACCUGGCCGACUU
mmu-miR-292-5p	<u>SEQ ID NO. 103</u> ACUCAAACUGGGGGCUCUUUUG	<u>SEQ ID NO.409</u> CAAAAGAGCCCCCAGUUUGAGU
mmu-miR-293	<u>SEQ ID NO. 104</u> AGUGCCGCAGAGUUUGUAGUGU	<u>SEQ ID NO.410</u> ACACUACAAACUCUGCGGCACU
mmu-miR-294	<u>SEQ ID NO. 105</u> AAAGUGCUUCCUUUUGUGUGU	<u>SEQ ID NO.411</u> ACACACAAAAGGAAGCACUUU
mmu-miR-295	<u>SEQ ID NO. 106</u> AAAGUGCUACUACUUUUGAGUC	<u>SEQ ID NO.412</u> GACUAAAAGUAGUAGCACUUU
mmu-miR-297	<u>SEQ ID NO. 107</u> AUGUAUGUGUGCAUGUGCAUGU	<u>SEQ ID NO.413</u> ACAUGCACAUGCACACAUACAU
mmu-miR-298	<u>SEQ ID NO. 108</u> GGCAGAGGAGGGCUGUUCUCC	<u>SEQ ID NO.414</u> GGAAGAACAGCCCCUCCUCUGCC
mmu-miR-300	<u>SEQ ID NO. 109</u> UAUGCAAGGGCAAGCUCUCUUC	<u>SEQ ID NO.415</u> GAAGAGAGCUUGCCCCUUGCAUA
mmu-miR-31	<u>SEQ ID NO. 110</u> AGGCAAGAUGCUGGCAUAGCUG	<u>SEQ ID NO.416</u> CAGCUAUGCAGCAUCUUGCCU
mmu-miR-322	<u>SEQ ID NO. 111</u> AAACAUGAAGCGCUGAACACC	<u>SEQ ID NO.417</u> GGUGUUGCAGCGCUUCAUGUUU
mmu-miR-325	<u>SEQ ID NO. 112</u> CCUAGUAGGUGCUCAGUAAGUG	<u>SEQ ID NO.418</u> CACUUACUGAGCACCACUAGG
mmu-miR-326	<u>SEQ ID NO. 113</u> CCUCUGGGCCCUCUCCUCAGUC	<u>SEQ ID NO.419</u> GACUGGAGGAAGGGCCCAGAGG
mmu-miR-330	<u>SEQ ID NO. 114</u> GCAAAGCACAGGGCCUGCAGAG	<u>SEQ ID NO.420</u> CUCUGCAGGCCUGUGCUUUGC
mmu-miR-331	<u>SEQ ID NO. 115</u> GCCCCUGGGCCUAUCCUAGAAC	<u>SEQ ID NO.421</u> GUUCUAGGAUAGGCCAGGGC
mmu-miR-337	<u>SEQ ID NO. 116</u> UUCAGCUCCUUAUGAUGCCUU	<u>SEQ ID NO.422</u> AAGGCAUCAUUAAGGAGCUGAA
mmu-miR-338	<u>SEQ ID NO. 117</u> UCCAGCAUCAGUGAUUUUGUUG	<u>SEQ ID NO.423</u> CAACAAAAUACACUGAUGCUGGA
mmu-miR-339	<u>SEQ ID NO. 118</u> UCCCUGGUCCUCAGGAGCUCAC	<u>SEQ ID NO.424</u> GUGAGCUCCUGGAGGACAGGGGA
mmu-miR-340	<u>SEQ ID NO. 119</u> UCCGUCUCAGUUACUUUAUGC	<u>SEQ ID NO.425</u> GCUUAAGUAACUGAGACGGA
mmu-miR-341	<u>SEQ ID NO. 120</u> UCGAUCGGUCGGUCGGUCAGUC	<u>SEQ ID NO.426</u> GACUGACCGACCGACCGAUCGA
mmu-miR-342	<u>SEQ ID NO. 121</u> UCUCACACAGAAAUCGCACCCG	<u>SEQ ID NO.427</u> CGGGUGCGAUUUCUGUGUGAGA
mmu-miR-344	<u>SEQ ID NO. 122</u> UGAUCUAGCCAAAGCCUGACUG	<u>SEQ ID NO.428</u> CAGUCAGGUUUGGUAGAUCA
mmu-miR-345	<u>SEQ ID NO. 123</u> UGCUGACCCCUAGUCCAGUGCU	<u>SEQ ID NO.429</u> AGCACUGGACUAGGGGUCAGCA
mmu-miR-346	<u>SEQ ID NO. 124</u> UGUCUGCCCGAGUGCCUGCCUC	<u>SEQ ID NO.430</u> GAGGCAGGGCACUCGGGCAGACA
mmu-miR-34b	<u>SEQ ID NO. 125</u> UAGGCAGGUAAAUGCUGAUU	<u>SEQ ID NO.431</u> AAUCAGCUAAUACACUGCCUA
mmu-miR-350	<u>SEQ ID NO. 126</u> UUCACAAAGCCCAUACACUUUC	<u>SEQ ID NO.432</u> GAAAGUGUAUGGCCUUUGUGAA
mmu-miR-351	<u>SEQ ID NO. 127</u> UCCCUGAGGAGCCUUJUGAGCC	<u>SEQ ID NO.433</u> GGCUCAAAGGGCUCUCAGGGA
mmu-miR-7b	<u>SEQ ID NO. 128</u> UGGAAGACUUGUGAUUUUGUUG	<u>SEQ ID NO.434</u> CAACAAAAUACACAAGCUUCCA
mmu-miR-92	<u>SEQ ID NO. 129</u> UAUUGCACUUGUCCGGCCUGA	<u>SEQ ID NO.435</u> UCAGGCCGGACAAGUGCAAUA
mmu-miR-93	<u>SEQ ID NO. 130</u> CAAAGUGCUGUUCGUGCAGGUA	<u>SEQ ID NO.436</u> UACCUGCAGCAACAGCACUUUG
rno-miR-327	<u>SEQ ID NO. 131</u> CCUUGAGGGGCAUGAGGGUAGU	<u>SEQ ID NO.437</u> ACUACCCUCUAGCCCCUCAAGG
rno-miR-333	<u>SEQ ID NO. 132</u> GUGGUGUGCUAGUACUUUUGG	<u>SEQ ID NO.438</u> CCAAAAGUAACUAGCACACCAC
rno-miR-335	<u>SEQ ID NO. 133</u> UCAAGAGCAAAUACGAAAAAUG	<u>SEQ ID NO.439</u> CAUUUUUCGUUAUUGCUCUUGA
rno-miR-336	<u>SEQ ID NO. 134</u> UCACCCUUCCAUACUAGUCUC	<u>SEQ ID NO.440</u> GAGACUAGUAUAGGAAGGGGAGA
rno-miR-343	<u>SEQ ID NO. 135</u> UCUCCCCUCGUGUGGCCAGUAU	<u>SEQ ID NO.441</u> AUACUGGGCACCGGAGGGAGA
rno-miR-347	<u>SEQ ID NO. 136</u> UGUCCCCUCUGGGUCGCCAGCU	<u>SEQ ID NO.442</u> AGCUGGGCACCCAGAGGGACA
rno-miR-349	<u>SEQ ID NO. 137</u> CAGCCCUGCUGUCUUAACCUCU	<u>SEQ ID NO.443</u> AGAGGUUAAGACAGCAGGGCUG
rno-miR-352	<u>SEQ ID NO. 138</u> AGAGUAGUAGGUUGCAUAGUAC	<u>SEQ ID NO.444</u> GUACUAUGCAACCUACUACUCU

Table 2: Novel Human microRNA and anti-microRNA sequences.

Applicants: Tuschl et al.

Serial No: Unassigned

Docket No. 1119-10 CON/PCT/US

Page 5 of 19

microRNA name	microRNA sequence (5' to 3')	Anti-microRNA molecule sequence (5' to 3')
hsa-miR-361	<u>SEQ ID NO. 139</u> UUAUCAGAAUCUCCAGGGGUAC	<u>SEQ ID NO.445</u> GUACCCCUGGAGAUUCUGAUAA
hsa-miR-362	<u>SEQ ID NO. 140</u> AAUCCUUGGAACCUAGGUGUGA	<u>SEQ ID NO.446</u> UCACACCUAGGUUCCAAGGAUU
hsa-miR-363	<u>SEQ ID NO. 141</u> AUUGCACGGUAUCCAUCUGUAA	<u>SEQ ID NO.447</u> UUACAGAUGGAUACCGUGCAAU
hsa-miR-364	<u>SEQ ID NO. 142</u> CGGCAGGGACGGCGAUUGGUCC	<u>SEQ ID NO.448</u> GGACCAAUCGCCGUCCCCGCCG
hsa-miR-365	<u>SEQ ID NO. 143</u> UAAUGCCCCUAAAAAUCCUUAU	<u>SEQ ID NO.449</u> AUAAGGAUUUUAGGGGCAUUA
hsa-miR-366	<u>SEQ ID NO. 144</u> UAACUGGUUGAACACUGAACCC	<u>SEQ ID NO.450</u> GGUUCAGUUGUUCAACCAGUUA

Table 3: C. elegans microRNA and anti-microRNA sequences.

microRNA name	microRNA sequence (5' to 3')	Anti-microRNA molecule sequence (5' to 3')
Cel-let-7	<u>SEQ ID NO. 145</u> UGAGGUAGUAGGUUGUAUAGUU	<u>SEQ ID NO.451</u> AACUAUACAACCUACUACCUCA
Cel-lin-4	<u>SEQ ID NO. 146</u> UCCCUGAGACCUCAGUGUGAG	<u>SEQ ID NO.452</u> CUCACACUTUGAGGUCAGGGAA
Cel-miR-1	<u>SEQ ID NO. 147</u> UGGAAUGUAAAAGAACGUAGUAG	<u>SEQ ID NO.453</u> CUACAUACUUCUUUACAUUCCA
Cel-miR-2	<u>SEQ ID NO. 148</u> UAUCACAGCCAGCUUGAUGUG	<u>SEQ ID NO.454</u> CACAUCAAAGCUGGCUGUGAUAA
Cel-miR-34	<u>SEQ ID NO. 149</u> AGGCAGUGGGGUUAGCUGGUUG	<u>SEQ ID NO.455</u> CAACCAGCUAACACACUGCCU
Cel-miR-35	<u>SEQ ID NO. 150</u> UCACCGGGGUGAACUAGCAGU	<u>SEQ ID NO.456</u> ACUGCUAGUUUCCACCCGGUGA
Cel-miR-36	<u>SEQ ID NO. 151</u> UCACCGGGUGAAAAUUCGCAUG	<u>SEQ ID NO.457</u> CAUGCAGAUUUUCCACCCGGUGA
Cel-miR-37	<u>SEQ ID NO. 152</u> UCACCGGGUGAACACUUGCAGU	<u>SEQ ID NO.458</u> ACUGCAAGGUUCACCCGGUGA
Cel-miR-38	<u>SEQ ID NO. 153</u> UCACCGGGAGAAAAACUGGAGU	<u>SEQ ID NO.459</u> ACUCCAGUUUUUCUCCCGGUGA
Cel-miR-39	<u>SEQ ID NO. 154</u> UCACCGGGUGUAAAUCAGCUUG	<u>SEQ ID NO.460</u> CAAGCUGAUUUACACCCGGUGA
Cel-miR-40	<u>SEQ ID NO. 155</u> UCACCGGGUGUACAUUCAGCUAA	<u>SEQ ID NO.461</u> UUAGCUGAUGUACACCCGGUGA
Cel-miR-41	<u>SEQ ID NO. 156</u> UCACCGGGUGAAAAAUCACCUA	<u>SEQ ID NO.462</u> UAGGUGAUUUUUCACCCGGUGA
Cel-miR-42	<u>SEQ ID NO. 157</u> CACCGGUUAACAUCUACAGAG	<u>SEQ ID NO.463</u> CUCUGUAGAUGUUAACCCGGUG
Cel-miR-43	<u>SEQ ID NO. 158</u> UAUCACAGUUUACUUGCUGUCG	<u>SEQ ID NO.464</u> CGACAGCAAGUAACUGUGAUAA
Cel-miR-44	<u>SEQ ID NO. 159</u> UGACUAGAGACACAUUCAGCUU	<u>SEQ ID NO.465</u> AAGCUGAAUGUGUCUAGUCA
Cel-miR-45	<u>SEQ ID NO. 160</u> UGACUAGAGACACAUUCAGCUU	<u>SEQ ID NO.466</u> AAGCUGAAUGUGUCUAGUCA
Cel-miR-46	<u>SEQ ID NO. 161</u> UGUCAUUGGAGUCGCUCUCUCA	<u>SEQ ID NO.467</u> UGAAGAGAGCGACUCCAUGACA
Cel-miR-47	<u>SEQ ID NO. 162</u> UGUCAUUGGAGGCUCUCUCA	<u>SEQ ID NO.468</u> UGAAGAGAGCGCCUCCAUGACA
Cel-miR-48	<u>SEQ ID NO. 163</u> UGAGGUAGGCUCAGUAGAUGCG	<u>SEQ ID NO.469</u> CGCAUCUACUGAGCCUACCUCA
Cel-miR-49	<u>SEQ ID NO. 164</u> AAGCACCACGAGAACGUCGCAGA	<u>SEQ ID NO.470</u> UCUGCAGCUUCUCUGGUGGCUU
Cel-miR-50	<u>SEQ ID NO. 165</u> UGAUAUGUCUGGUUUUCUUGGG	<u>SEQ ID NO.471</u> CCCAAGAAUACCAGACAUUA
Cel-miR-51	<u>SEQ ID NO. 166</u> UACCCGUAGCUCCUAUCCAUGU	<u>SEQ ID NO.472</u> ACAUGGAUAGGAGCUACGGGUA
Cel-miR-52	<u>SEQ ID NO. 167</u> CACCCGUACAUUAUGUUUCCGUG	<u>SEQ ID NO.473</u> CACGGAAACAAUAGUACGGGUG
Cel-miR-53	<u>SEQ ID NO. 168</u> CACCCGUACAUUUGUUUCCGUG	<u>SEQ ID NO.474</u> CACGGAAACAAAUGUACGGGUG
Cel-miR-54	<u>SEQ ID NO. 169</u> UACCCGUAAUCUCAUAAUCCG	<u>SEQ ID NO.475</u> CGGAUUAUGAAGAUUACGGGUA
Cel-miR-55	<u>SEQ ID NO. 170</u> UACCCGUAAAGUUUCUGCUGA	<u>SEQ ID NO.476</u> UCAGCAGAAACUUUAACGGGUA
Cel-miR-56	<u>SEQ ID NO. 171</u> UACCCGUAAUGUUUCCGUGAG	<u>SEQ ID NO.477</u> CUCAGCGGAAACAUUAACGGGUA
Cel-miR-57	<u>SEQ ID NO. 172</u> UACCCGUAGAUCGAGCUGUGU	<u>SEQ ID NO.478</u> ACACAGCUCGAUCUACAGGGUA
Cel-miR-58	<u>SEQ ID NO. 173</u> UGAGAUUCGUUCAGUACGGCAAU	<u>SEQ ID NO.479</u> AUUGCCGUACUGAACGAUCUCA
Cel-miR-59	<u>SEQ ID NO. 174</u> UCGAAUCGUUUUAUCAGGAUGAU	<u>SEQ ID NO.480</u> AUCAUCCUGUAACCGAUUCGA
Cel-miR-60	<u>SEQ ID NO. 175</u> UAUUAUGCACAUUUUCUAGUUC	<u>SEQ ID NO.481</u> GAACUAGAAA AUGUGCAUAUA
Cel-miR-61	<u>SEQ ID NO. 176</u> UGACUAGAACCGUUACUCAUCU	<u>SEQ ID NO.482</u> AGAUGAGUAACGGGUUCUAGUCA
Cel-miR-62	<u>SEQ ID NO. 177</u> UGAAUAUGUAACUAGCUUACAG	<u>SEQ ID NO.483</u> CUGUAAGCUAGAUUACAUUA
Cel-miR-63	<u>SEQ ID NO. 178</u> AUGACACUGAAGCGAGUJUGGAA	<u>SEQ ID NO.484</u> UUCCAACUCGCUUCAGUGUCAU
Cel-miR-64	<u>SEQ ID NO. 179</u> UAUGACACUGAAGCGUACCGA	<u>SEQ ID NO.485</u> UCGGUACCGCUUCAGUGUCAU
Cel-miR-65	<u>SEQ ID NO. 180</u> UAUGACACUGAAGCGUACCGA	<u>SEQ ID NO.486</u> UCGGUUACCGCUUCAGUGUCAU
Cel-miR-66	<u>SEQ ID NO. 181</u> CAUGACACUGAUUAGGGAUUGUG	<u>SEQ ID NO.487</u> CACAUCCCUAACUAGUGUCAU
Cel-miR-67	<u>SEQ ID NO. 182</u> UCACAACCUUAGAAAGAGUA	<u>SEQ ID NO.488</u> UACUCUUUCUAGGAGGUUGUGA
Cel-miR-68	<u>SEQ ID NO. 183</u> UCGAAGACUCAAAAGGUAGAC	<u>SEQ ID NO.489</u> GUCUACACUUUUGAGUCUUCGA
Cel-miR-69	<u>SEQ ID NO. 184</u> UCGAAAAAUAAAAGGUAGAA	<u>SEQ ID NO.490</u> UUCUACACUUUUAUUUUUCGA
Cel-miR-70	<u>SEQ ID NO. 185</u> UAAUACGUUCGUUGGUUUCCA	<u>SEQ ID NO.491</u> UGGAAACACCAACGACGUUAUA
Cel-miR-71	<u>SEQ ID NO. 186</u> UGAAAGACAUGGGUAGUGAACG	<u>SEQ ID NO.492</u> CGUUCACUACCCAUUCUUGCCU
Cel-miR-72	<u>SEQ ID NO. 187</u> AGGCAAGAUGUUGGUCAUGCUG	<u>SEQ ID NO.493</u> CAGCUAUGCACACAUUCCU
Cel-miR-73	<u>SEQ ID NO. 188</u> UGGCAAGAUGUAGGCAGUCAG	<u>SEQ ID NO.494</u> CUGAACUGCCUACAUUCCU
Cel-miR-74	<u>SEQ ID NO. 189</u> UGGCAAGAAAUGGCAGUCUACA	<u>SEQ ID NO.495</u> UGUAGACUGCCAUUCUUGCC
Cel-miR-75	<u>SEQ ID NO. 190</u> UUAAAGCUACCAACCGGCUUCA	<u>SEQ ID NO.496</u> UGAAGCCGGUUGGUAGCUUUUA
Cel-miR-76	<u>SEQ ID NO. 191</u> UUCGUUGUUGAUGAACGCCUUGA	<u>SEQ ID NO.497</u> UCAAGGCUCUCAUACAACGAA
Cel-miR-77	<u>SEQ ID NO. 192</u> UUCAUCAGGCCUAGCUGUCC	<u>SEQ ID NO.498</u> UGGACAGCUAUGGCCUGAUGAA
Cel-miR-78	<u>SEQ ID NO. 193</u> UGGAGGCCUGGUUGUUUGUGCU	<u>SEQ ID NO.499</u> AGCACAAACAACCGAGGCCUCCA
Cel-miR-79	<u>SEQ ID NO. 194</u> AUAAAGCUAGGUUACCAAAGCU	<u>SEQ ID NO.500</u> AGCUUUGGUAAACCUAGCUUUUA
Cel-miR-227	<u>SEQ ID NO. 195</u> AGCUUUCGACAUGAUUCUGAAC	<u>SEQ ID NO.501</u> GUUCAGAAUCAUGUCGAAAGCU
Cel-miR-80	<u>SEQ ID NO. 196</u> UGAGAUCAUUAGUUGAAAGCCG	<u>SEQ ID NO.502</u> CGGCUUUCAACUAAUGAUCUCA
Cel-miR-81	<u>SEQ ID NO. 197</u> UGAGAUCAUCGUGAAAGCUAGU	<u>SEQ ID NO.503</u> ACUAGCUUUCACGAUGAUCUCA

microRNA name	microRNA sequence (5' to 3')	Anti-microRNA molecule sequence (5' to 3')
Cel-miR-82	<u>SEQ ID NO. 198</u> UGAGAUCAUCGUGAAAGCCAGU	<u>SEQ ID NO.504</u> ACUGGCCUUUCACGAUGAUCUA
Cel-miR-83	<u>SEQ ID NO. 199</u> UAGCACCAUAAAUCAGUAA	<u>SEQ ID NO.505</u> UUACUGAAUUAUUAUGGUGCJA
Cel-miR-84	<u>SEQ ID NO. 200</u> UGAGGUAGUAUGUAAAUCAGU	<u>SEQ ID NO.506</u> UACAAUAAAUCAUACUACCUCA
Cel-miR-85	<u>SEQ ID NO. 201</u> UACAAAGUAUUUGAAAAGUCGU	<u>SEQ ID NO.507</u> ACGACUUUUCAAAUCUUUGUJA
Cel-miR-86	<u>SEQ ID NO. 202</u> UAAGUGAAUCGUUUGCCACAGU	<u>SEQ ID NO.508</u> ACUGUGGCAAAGCAUUCACUUA
Cel-miR-87	<u>SEQ ID NO. 203</u> GUGAGCAAAGUUUCAGGUGUGC	<u>SEQ ID NO.509</u> GCACACCUGAAACUJUGCUCAC
Cel-miR-90	<u>SEQ ID NO. 204</u> UGAAUAGUUGUUUGAAUGCCCC	<u>SEQ ID NO.510</u> GGGGCAUUCAAACAACAUAUCA
Cel-miR-124	<u>SEQ ID NO. 205</u> UAAGGCACGCGGUGAAUGCCAC	<u>SEQ ID NO.511</u> GUGGCAUUCACCGCGUGCCUUA
Cel-miR-228	<u>SEQ ID NO. 206</u> AAUGGCACUGCAUGAAUUCACG	<u>SEQ ID NO.512</u> CGUGAAUUCAUUGCAGUGCCAUAU
Cel-miR-229	<u>SEQ ID NO. 207</u> AAUGACACUGGUUAUCUUUUC	<u>SEQ ID NO.513</u> GGAAAAGAUAAACAGUGUCAUU
Cel-miR-230	<u>SEQ ID NO. 208</u> GUAAUAGUUGUGCGACCAGGAG	<u>SEQ ID NO.514</u> CUCCUGGUGCACAAACUAAUAC
Cel-miR-231	<u>SEQ ID NO. 209</u> UAAGCUCGUGAUCAACAGGCAG	<u>SEQ ID NO.515</u> CUGCCUGUGAUACAGGAGCUUA
Cel-miR-232	<u>SEQ ID NO. 210</u> UAAAUGCAUCUUAACUGCGGUG	<u>SEQ ID NO.516</u> CACCGCAGUUAAGAUGCAUUA
Cel-miR-233	<u>SEQ ID NO. 211</u> UUGAGCAAUGCAGUUGUGCGGG	<u>SEQ ID NO.517</u> CCCGCACAUGCGCAUUGCUCAA
Cel-miR-234	<u>SEQ ID NO. 212</u> UUAUUGCUCGAGAAUACCUUU	<u>SEQ ID NO.518</u> AAAGGGUAUUCUCGAGCAUAUA
Cel-miR-235	<u>SEQ ID NO. 213</u> UAUUGCACUCUCCCCGGCCUGA	<u>SEQ ID NO.519</u> UCAGGCCGGGGAGAGUGCAAUA
Cel-miR-236	<u>SEQ ID NO. 214</u> UAAUACUGUCAGGUAAUGACGC	<u>SEQ ID NO.520</u> GCGUCAUUAACCUUGACAGUUAUA
Cel-miR-237	<u>SEQ ID NO. 215</u> UCCCUGAGAAUUCUCGAACAGC	<u>SEQ ID NO.521</u> GCUGUUCGAGAAUUCUCAGGGA
Cel-miR-238	<u>SEQ ID NO. 216</u> UUUGUACUCCGAUGCCAUUCAG	<u>SEQ ID NO.522</u> CUGAAUGGCAUCGGAGUACAAA
Cel-miR-239a	<u>SEQ ID NO. 217</u> UUUGUACUACACAUAGGUACUG	<u>SEQ ID NO.523</u> CAGUACCUAUGUGUAGUACAAA
Cel-miR-239b	<u>SEQ ID NO. 218</u> UUUGUACUACACAAAAGUACUG	<u>SEQ ID NO.524</u> CAGUACUUUUGUGUAGUACAAA
Cel-miR-240	<u>SEQ ID NO. 219</u> UACUGGCCAAAAUCUUCGCU	<u>SEQ ID NO.525</u> AGCGAAGAUUUGGGGCCAGUA
Cel-miR-241	<u>SEQ ID NO. 220</u> UGAGGUAGGUGCGAGAAUAGAC	<u>SEQ ID NO.526</u> GUCAUUUCUCGCACCUACCUA
Cel-miR-242	<u>SEQ ID NO. 221</u> UUGCGUAGGCCUUUGCUUCGAG	<u>SEQ ID NO.527</u> CUCGAAGCAAAGGCCUACGCAA
Cel-miR-243	<u>SEQ ID NO. 222</u> CGGUACGAUCGCGGGGGAUUA	<u>SEQ ID NO.528</u> AUAUCCGCCGCGAUCGUACCG
Cel-miR-244	<u>SEQ ID NO. 223</u> UCUUUGGUUGUACAAAGUGGU	<u>SEQ ID NO.529</u> UACCACUUUGUACAACCAAAGA
Cel-miR-245	<u>SEQ ID NO. 224</u> AUUGGUCCCCUCCAAGUAGCUC	<u>SEQ ID NO.530</u> GAGCUACUUGGAGGGGACCAAU
Cel-miR-246	<u>SEQ ID NO. 225</u> UUACAUGUUUCGGGUAGGAGCU	<u>SEQ ID NO.531</u> AGCUCCUACCCGAAACAAUGUAA
Cel-miR-247	<u>SEQ ID NO. 226</u> UGACUAGAGCCUAUUCUCUUCU	<u>SEQ ID NO.532</u> AGAAGAGAAUAGGCUCUAGUCA
Cel-miR-248	<u>SEQ ID NO. 227</u> UACACGGUGCACGGAUAACGCUC	<u>SEQ ID NO.533</u> GAGCGUUUAUCGUGACGUGUA
Cel-miR-249	<u>SEQ ID NO. 228</u> UCACAGGACUUUUGAGCGUUGC	<u>SEQ ID NO.534</u> GCAACGCUCAAAAGUCCUGUGA
Cel-miR-250	<u>SEQ ID NO. 229</u> UCACAGUCAACUGUUGGCAUGG	<u>SEQ ID NO.535</u> CCAUGCCAAACAGUUGACUGUGA
Cel-miR-251	<u>SEQ ID NO. 230</u> UUAAGUAGUGGUUGCCGCUUUA	<u>SEQ ID NO.536</u> UAAGAGCGGCACCAACUUA
Cel-miR-252	<u>SEQ ID NO. 231</u> UAAGUAGUAGUGCCGAGGUAA	<u>SEQ ID NO.537</u> UUACCUGGGCACUACUACUUA
Cel-miR-253	<u>SEQ ID NO. 232</u> CACACCUCACUAACACUGACCA	<u>SEQ ID NO.538</u> UGGUCAGUGUUAGUGAGGUGUG
Cel-miR-254	<u>SEQ ID NO. 233</u> UGCAAAUCUUCGCGACUGUAG	<u>SEQ ID NO.539</u> CUACAGUCGCGAAAGAUUUGCA
Cel-miR-256	<u>SEQ ID NO. 234</u> UGGAAUGCAUAGAACUGUAC	<u>SEQ ID NO.540</u> GUACAGUCUUCUAUGCAUUC
Cel-miR-257	<u>SEQ ID NO. 235</u> GAGUAUCAGGAGUACCCAGUGA	<u>SEQ ID NO.541</u> UCACUGGUACUCUGAUACUC
Cel-miR-258	<u>SEQ ID NO. 236</u> GGUUUUUGAGAGGAAUCCUUUUA	<u>SEQ ID NO.542</u> UAAAAGGAUUCUCUCAAAAC
Cel-miR-259	<u>SEQ ID NO. 237</u> AGUAAAUCUCAUCCUAAUCUGG	<u>SEQ ID NO.543</u> CCAGAUUAGGAUGAGAUUUACU
Cel-miR-260	<u>SEQ ID NO. 238</u> GUGAUGUCGAACUCUUGUAGGA	<u>SEQ ID NO.544</u> UCCUACAAAGAGUUCGACAUAC
Cel-miR-261	<u>SEQ ID NO. 239</u> UAGCUUUUAGUUUUCACGGUG	<u>SEQ ID NO.545</u> CACCGUGAAAACUAAAAAGCUA
Cel-miR-262	<u>SEQ ID NO. 240</u> GUUUCUCGAUGUUUUCUGAUAC	<u>SEQ ID NO.546</u> GUAUCAGAAAACAUCGAGAAAC
Cel-miR-264	<u>SEQ ID NO. 241</u> GGCAGGGUGGUUGUUGUUAUGGG	<u>SEQ ID NO.547</u> CCCAUACAAACACCACCCGCC
Cel-miR-265	<u>SEQ ID NO. 242</u> UGAGGGAGGAAGGGUGGUAUUU	<u>SEQ ID NO.548</u> AAAUACCAACCUUCCUCCCUA
Cel-miR-266	<u>SEQ ID NO. 243</u> AGGCAAGACUUUUCGAAAGCUU	<u>SEQ ID NO.549</u> AAGCUUUGCCAAAGUCUUGCCU
Cel-miR-267	<u>SEQ ID NO. 244</u> CCCGUGAAGGUGUCUGCUGCAAU	<u>SEQ ID NO.550</u> AUUGCAGCAGACACUUCACGGG
Cel-miR-268	<u>SEQ ID NO. 245</u> GGCAAGAAUAGAACGAGUUAUUG	<u>SEQ ID NO.551</u> CAAACUGCUUCUAUUCUUGCC
Cel-miR-269	<u>SEQ ID NO. 246</u> GGCAAGACUCUGGCAAAACUUG	<u>SEQ ID NO.552</u> CAAGUUUUGCCAGAGUCUUGCC
Cel-miR-270	<u>SEQ ID NO. 247</u> GGCAUGAUGUAGCAGUGGGAGAU	<u>SEQ ID NO.553</u> AUCUCCACUGCUACAUCAUGCC
Cel-miR-271	<u>SEQ ID NO. 248</u> UCGCCGGGUGGGAAAGCAUUCG	<u>SEQ ID NO.554</u> CGAAUGCUUUCCCACCCGGCGA
Cel-miR-272	<u>SEQ ID NO. 249</u> UGUAGGCAUGGGUGUUUUGGAAG	<u>SEQ ID NO.555</u> CUUCCAAACACCCAUGCCUACAA
Cel-miR-273	<u>SEQ ID NO. 250</u> UGCCGUACUGUGUCGGCUGCU	<u>SEQ ID NO.556</u> AGCAGCCGACACAGUACGGGCA

Table 4: Drosophila microRNA and anti-microRNA sequences.

microRNA name	microRNA sequence (5' to 3')	Anti-microRNA molecule sequence (5' to 3')	#
Dme-miR-263a	<u>SEQ ID NO. 251</u> GUUAUGGCACUGGAAGAAUUC	<u>SEQ ID NO.557</u> GAAUUCUJCCAGUGCACAUUAAC	
Dme-miR-184	<u>SEQ ID NO. 252</u> UGGACGGAGAACUGUAAGGGC	<u>SEQ ID NO.558</u> GCCCUUAUCAGUUCUCCGUCCA	
Dme-miR-274	<u>SEQ ID NO. 253</u> UUUUGUGACCACACUAACGGG	<u>SEQ ID NO.559</u> CCCGUAGUGUCGGUCACAAAAA	
Dme-miR-275	<u>SEQ ID NO. 254</u> UCAGGUACCUGAAGUAGCGCGC	<u>SEQ ID NO.560</u> GCGCGCUACUUCAGGUACCUGA	
Dme-miR-92a	<u>SEQ ID NO. 255</u> CAUUGCACUUGUCCCCGUUAU	<u>SEQ ID NO.561</u> AUAGGCCGGACAAGUGCAAUG	
Dme-miR-219	<u>SEQ ID NO. 256</u> UGAUUGUCCAAACGCAAUUCUU	<u>SEQ ID NO.562</u> AAGAAUUGC GUUUGGACAAUCA	
Dme-miR-276a	<u>SEQ ID NO. 257</u> UAGGAACUCAUACCGUGCUCU	<u>SEQ ID NO.563</u> AGAGCACGGUAUGAAGUCCUA	
Dme-miR-277	<u>SEQ ID NO. 258</u> UAAAUGCACUAUCUGGUACGAC	<u>SEQ ID NO.564</u> GUCGUACCAAGAUAGUGCAUUUA	
Dme-miR-278	<u>SEQ ID NO. 259</u> UCGGUUGGGACUUUCGUCCGUUU	<u>SEQ ID NO.565</u> AAACGGACGAAAGGUCCCACCGA	
Dme-miR-133	<u>SEQ ID NO. 260</u> UGGGUCCCCUUCACACCAGCUGU	<u>SEQ ID NO.566</u> ACAGCUGGUUGAAGGGGACCAA	
Dme-miR-279	<u>SEQ ID NO. 261</u> UGACUAGAUCACACUCAUUA	<u>SEQ ID NO.567</u> UUAAUGAGUGUGGAUCUAGUCA	
Dme-miR-33	<u>SEQ ID NO. 262</u> AGGUGCAUUGUAGUCGCAUUGU	<u>SEQ ID NO.568</u> ACAAUGCACUACAAUGCACCU	
Dme-miR-280	<u>SEQ ID NO. 263</u> UGUAUUUACGUUGCAUAUGAAA	<u>SEQ ID NO.569</u> UUUCAUAUGCAACGUAAAUAACA	
Dme-miR-281	<u>SEQ ID NO. 264</u> UGUCAUGGAAUUGCUCUCUUUG	<u>SEQ ID NO.570</u> CAAAGAGAGCAAUUCCAUGACA	
Dme-miR-282	<u>SEQ ID NO. 265</u> AAUCUAGCCUCUACUAGGCUUU	<u>SEQ ID NO.571</u> AAAGCCUAGUAGAGGCUAGAUU	
Dme-miR-283	<u>SEQ ID NO. 266</u> UAAAUAUCAGCUGGUAAUCUG	<u>SEQ ID NO.572</u> CAGAAUUACCAGCUGAUUAUUUA	
Dme-miR-284	<u>SEQ ID NO. 267</u> UGAAGUCAGCAACUUGAUUCCA	<u>SEQ ID NO.573</u> UGGAAUCAAGUUGCUGACUUCA	
Dme-miR-34	<u>SEQ ID NO. 268</u> UGGCAGUGUGGUUAGCUGGUUG	<u>SEQ ID NO.574</u> CAACCAGCUAACACACUGCCA	
Dme-miR-124	<u>SEQ ID NO. 269</u> UAAGGCACGC GGUGAAUGCCAA	<u>SEQ ID NO.575</u> UUGGCAUUCACCGCGUGCCUA	
Dme-miR-79	<u>SEQ ID NO. 270</u> UAAAGCUAGAUUACCAAGCAU	<u>SEQ ID NO.576</u> AUGCUUUGGUAAUCUAGCUUUA	
Dme-miR-276b	<u>SEQ ID NO. 271</u> UAGGAACUUAACCGUGGU	<u>SEQ ID NO.577</u> AGAGCACGGUAAAAGUCCUA	
Dme-miR-210	<u>SEQ ID NO. 272</u> UUGUGCGUGUGACAGC GGCUAU	<u>SEQ ID NO.578</u> AUAGCCG CUGUCACACGCACAA	
Dme-miR-285	<u>SEQ ID NO. 273</u> UAGCACCAUUCGAAACAGUGC	<u>SEQ ID NO.579</u> GCACUGAUUCGAAUUGGUGCUA	
Dme-miR-100	<u>SEQ ID NO. 274</u> AACCCGUAAAUCCGAACUUGUG	<u>SEQ ID NO.580</u> CACAAGUUCGGAAUUAACGGGUU	
Dme-miR-92b	<u>SEQ ID NO. 275</u> AAUUGCACUAGUCCGGCCUGC	<u>SEQ ID NO.581</u> GCAGGCCGGGACUAGUGCAAUU	
Dme-miR-286	<u>SEQ ID NO. 276</u> UGACUAGACCGAACACUCGUGC	<u>SEQ ID NO.582</u> GCACGAGUGUUCGGCUAGUCA	
Dme-miR-287	<u>SEQ ID NO. 277</u> UGUGUUGAAAUCGUUUGCACG	<u>SEQ ID NO.583</u> CGUGCAAACGAUUUCAACACA	
Dme-miR-87	<u>SEQ ID NO. 278</u> UUGAGCAAAAUUCAGGUGUGU	<u>SEQ ID NO.584</u> ACACACCUGAAAUUUGCUCAA	
Dme-miR-263b	<u>SEQ ID NO. 279</u> CUUGGCACUGGGAGAAUUCACA	<u>SEQ ID NO.585</u> UGUGAAUUCUCCCAUGGCCAAG	
Dme-miR-288	<u>SEQ ID NO. 280</u> UUUCAUGUCGAUUUCAUUUCAU	<u>SEQ ID NO.586</u> AUGAAAUGAAAUCGACAUUGAAA	
Dme-miR-289	<u>SEQ ID NO. 281</u> UAAAUAUUAAGUGGAGGCCUGC	<u>SEQ ID NO.587</u> GCAGGCUCCACUUAAAUAUUUA	
Dme-bantam	<u>SEQ ID NO. 282</u> UGAGAUCAUUUUGAAAGCUGAU	<u>SEQ ID NO.588</u> AUCAGCUUCAAAAUGAUCA	
Dme-miR-303	<u>SEQ ID NO. 283</u> UUAGGUUUUCACAGGAACUGG	<u>SEQ ID NO.589</u> CCAGUUUCCUGUGAAACCUCAAA	
Dme-miR-31b	<u>SEQ ID NO. 284</u> UGGCAAGAUGUCGGAAUAGCUG	<u>SEQ ID NO.590</u> CAGCUAUUCGACAUUCUUGCCA	
Dme-miR-304	<u>SEQ ID NO. 285</u> UAAUCUCAUUUUGAAAUGUGA	<u>SEQ ID NO.591</u> UCACAUUJACAAAUGAGAUUA	
Dme-miR-305	<u>SEQ ID NO. 286</u> AUUGUACUUCAUCAGGUGUCU	<u>SEQ ID NO.592</u> AGAGCACCUAGAAGUACAAU	
Dme-miR-9c	<u>SEQ ID NO. 287</u> UCUUJUGGUUUUCAGCUAG	<u>SEQ ID NO.593</u> UCUACAGCUAGAAUACCAAAAGA	
Dme-miR-306	<u>SEQ ID NO. 288</u> UCAGGUACUUAGUGACUCUAA	<u>SEQ ID NO.594</u> UUGAGAGUCACUAAGUACCUGA	
Dme-miR-9b	<u>SEQ ID NO. 289</u> UCUUJUGGUUUUAGCUGUAU	<u>SEQ ID NO.595</u> AUACAGCUAAAUCACCAAAAGA	
Dme-miR-125	<u>SEQ ID NO. 290</u> UCCCUGAGACCCUAACUUGUGA	<u>SEQ ID NO.596</u> UCACAAGUAGGGUCUCAGGGA	
Dme-miR-307	<u>SEQ ID NO. 291</u> UCACAAACCUCUUGAGUGAGCG	<u>SEQ ID NO.597</u> CGCUCACUCAAGGAGGUUGUGA	
Dme-miR-308	<u>SEQ ID NO. 292</u> AAUCACAGGAUUUAACUGUGAG	<u>SEQ ID NO.598</u> CUCACAGUAUAAUCCUGUGAUU	
dme-miR-31a	<u>SEQ ID NO. 293</u> UGGCAAGAUGUCGGCAUAGCUG	<u>SEQ ID NO.599</u> CAGCUAUGC CGACAUUCUUGCCA	
dme-miR-309	<u>SEQ ID NO. 294</u> GCACUGGGUAAAUGUUGGU	<u>SEQ ID NO.600</u> UAGGACAAACUUUACCCAGUGC	
dme-miR-310	<u>SEQ ID NO. 295</u> UAUUGCACACUUCCGGCCUUU	<u>SEQ ID NO.601</u> AAAGGCCGGGAAGUGUGCAAUA	
dme-miR-311	<u>SEQ ID NO. 296</u> UAUUGCACAUUCACCGGGCUGA	<u>SEQ ID NO.602</u> UCAGGCCGGUGAAUGUGCAAUA	
dme-miR-312	<u>SEQ ID NO. 297</u> UAUUGCACUUGAGACGGCCUGA	<u>SEQ ID NO.603</u> UCAGGCCGUCAAGUGCAAUA	
dme-miR-313	<u>SEQ ID NO. 298</u> UAUUGCACUUUUCACAGGCCGA	<u>SEQ ID NO.604</u> UCAGGCCGUCAAGUGCAAUA	
dme-miR-314	<u>SEQ ID NO. 299</u> UAUUCGAGCCAUAAGUUCGG	<u>SEQ ID NO.605</u> CCGAACUUUAUGGCUCGAAUA	
dme-miR-315	<u>SEQ ID NO. 300</u> UUUUGAUUUGUUGCUCAGAAAGC	<u>SEQ ID NO.606</u> GCUUCUGAGCAACAAUCAAAA	
dme-miR-316	<u>SEQ ID NO. 301</u> UGUCUUUUUCCGCUUACUGGCG	<u>SEQ ID NO.607</u> CGCCAGUAAGCGGAAAAGACA	
dme-miR-317	<u>SEQ ID NO. 302</u> UGAACACAGCUGGUGGUUAUCCA	<u>SEQ ID NO.608</u> UGGAUACCACCAAGCUGUGUCA	
dme-miR-318	<u>SEQ ID NO. 303</u> UCACUGGGCUUUGUUAUCUCA	<u>SEQ ID NO.609</u> UGAGAUAAACAAAGGCCAGUGA	
dme-miR-2c	<u>SEQ ID NO. 304</u> UAUCACAGCCAGCUUGAUGGG	<u>SEQ ID NO.610</u> CCCAUCAAAGCUGGCUGUGUA	

microRNA name	microRNA sequence (5' to 3')	Anti-microRNA molecule sequence (5' to 3')
Dme-miR-iab45p	<u>SEQ ID NO. 305</u> ACGUAUACUGAAUGUAUCCUGA	<u>SEQ ID NO. 611</u> UCAGGAUACAUUCAGUAUACGU
Dme-miR-iab43p	<u>SEQ ID NO. 306</u> CGGUUAUACCUUCAGUAUACGU	<u>SEQ ID NO. 612</u> UACGUUAUCUGAAGGUUAACCG

On page 27, please delete the first full paragraph and insert in its place the following new paragraph:

The sequences of the 2'-O-methyl oligoribonucleotides were 5'-GUCAACAUCAUCAGUCUGUAAGCUAL (L, 3' aminolinker) for 2'-OMe miR-21 (SEQ ID NO. 613), and 5'-AAGGCAAGCUGACCCUGAAGUL for EGFP 2'-OMe antisense (SEQ ID NO. 614), 5'-UGAAGUCCCAGUCGAACGGAAL for EGFP 2'-OMe reverse (SEQ ID NO. 615); the sequence of chimeric 2'-OMe/DNA oligonucleotides was 5'-GTCAACATCAGTCTGATAAGCTAGCGL for 2'-deoxy miR-21 (underlined, 2'-OMe residues) (SEQ ID NO. 616), and 5'-AAGGCAAGCTGACCCTGAAGTGCGL for EGFP 2'-deoxy antisense (SEQ ID NO. 617).

On page 27, please delete the second full paragraph and insert in its place the following new paragraph:

The miR-21 cleavage substrate was prepared by PCR-based extension of the partially complementary synthetic DNA oligonucleotides 5'-GAACAATTGCTTTACAGATGCACATATCGAGGTGAACATCACGTACGTCAACATCAGTCTGATAAGCTATCGGTTGGCAGAACGCTAT (SEQ ID NO. 618) and 5'-GGCATAAAGAATTGAAGAGAGTTTCACTGCATACGACGATTCTGTATTGTATTCAAGCCCCATATCGTTCATAGCTCTGCCAACCGA (SEQ ID NO. 619). The extended dsDNA was then used as template for a new PCR with primers 5'-TAATACGACTCACTATAGAACAAATTGCTTTACAG (SEQ ID NO. 620) and 5'-ATTTAGGTGACACTATAGGCATAAAGAATTGAAGA (SEQ ID NO. 621) to introduce the T7 and SP6 promoter sequences for in vitro transcription. The PCR product was ligated into pCR2.1-TOPO (Invitrogen). Plasmids isolated from sequence-verified clones were used as templates for PCR to produce sufficient template for run-off in vitro transcription reactions using phage RNA polymerases (Elbashir et al., EMBO 20, 6877-6888 (2001)). ³²P-Cap-labelling was performed as reported (Martinez et al., Cell 110, 563-574 (2002)).

On page 27, please delete the paragraph bridging page 27 and 28 and insert in its place the following new paragraph:

Plasmids pEGFP-S-21 and pEGFP-A-21 were generated by T4 DNA ligation of preannealed oligodeoxynucleotides 5'-GGCCTAACATCAGTCTGATAAGCTAGGTACCT (SEQ ID NO. 622) and 5'-GGCCAGGTACCTAGCTTATCAGACTGATGTTGA (SEQ ID NO. 623) into NotI digested pEGFP-N-1 (Clontech). The plasmid pHcRed-C1 was from Clontech.